

As is well settled, anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. Shi fails to anticipate Applicant's invention because the claimed limitations of wherein "a solid primary amine neutralizes and removes the aldehyde from the waste stream" is not identically disclosed. This is not merely a matter of intended use because the presence and removal of an aldehyde from a waste stream is part of the body of claim 22. Therefore the Examiner's §102 (b) rejection is respectfully requested to be withdrawn.

§103

Claims 22-26, 31 were rejected under 35 USC §103(a) as obvious over Shi in view of US 5,534,143 (Portier). This rejection is respectfully traversed.

The Applicants submit that the Examiner has improperly combined the references in rejecting Applicants' invention. Shi is directed toward bioreactors which has one component of the bioreactor system a device which immobilizes cells cultured in the bioreactor with a cell supporting material ("CSM"). Representative supporting materials include "fibra-cell disks....or porous ceramics, sponge, fibers, porous beads, and peptide-coated beads" col. 2, lines 10-16. Portier, on the other hand, discloses a microbubble generator for optimizing the rate and amount of oxygen transfer to microbial inocula or biocatalysts in bioreactor systems. Portier also discloses an associated "immobilized cell reactor" useful in the detoxification and cleanup of non-volatile polymeric and volatile organic-contaminated aqueous streams. The items that are immobilized are "microorganisms" col. 6, line 31 which are biocatalysts. These biocatalysts do not remove anything from the effluent.

In contrast, Applicants' invention physically removes the aldehydes present in waste. There is no reaction as described in Portier which "breaks down" toxic organic compounds to non-toxic components (col. 6, lines 31-35). Clearly, the Examiner has impermissibly combined bioreactive art to render Applicants' aldehyde waste removal device obvious. As noted above, Applicants invention is not a matte of intended use because the presence and removal of an aldehyde from a waste stream is part of the body of the rejected claims. Therefore this rejection is respectfully requested to be withdrawn.

Claims 22-31 were rejected under obvious type double patenting over claim 15 of US 6,399,850 (Chen).

Applicants submit that the Examiner's double-patenting rejection is improper. Claim 15 is not specific with regard to all the ways in which aldehydes may be neutralized. While claim 15 may be broad, Applicants submit that the present invention is patentable and an advance over known aldehyde treatment devices, namely that the aldehyde is removed from the effluent stream rather than simply treating the aldehyde which in turn would pass out of the device's effluent. Therefore, Applicant respectfully requests withdrawal of the Examiner's rejection.

Claims 22-24, 31 were rejected as obvious under §103(a) as obvious over US 6,210,566 (King), US 4,780,315 (Wu) and JP 7204661 (Nagata).

The Applicants submit that the Examiner has improperly combined the references in rejecting Applicants' invention.

King is concerned with nestable containers that can be inserted into a dispenser for dispensing dispersants and minerals to kill both bacteria and algae in recirculating water systems commonly used in swimming pools, spas and the like (col. 1, lines 5-12). Wu is

directed toward rumen-stable compositions for coating medicaments and nutrients for ruminant animals (Abstract). The pellets are for oral administration (col 1, lines 5-9). Nagata is directed toward a glutaraldehyde waste water treatment agent and method that renders residual glutaraldehyde of a waste stream inactive.

The Examiner submits it would be obvious to combine King, Wu and Nagata to arrive at Applicants' invention. However, Applicants submit that there is no motivation to combine the orally administered pellets of Wu with the swimming pool canister of King and the waste water treatment agents of Nagata. Clearly, Applicants' invention solves a problem by removing an aldehyde from a wastes tream rather than mere treatment of an aldehyde which is discarded in an effluent stream. The Examiner's rejection is respectfully requested to be withdrawn.

§102(e)

The Examiner submits that claims 22-24 and 31 are anticipated by Chen. However, Chen while treating an aldheyde with a solid primary amine, the treated aldehyde leaves the treatment container as an effluent. In the present invention, the aldehyde is removed from the wastestream by containers with a solid primary amine. The solid primary amine is immobilized in the container. Chen therefore does not identically disclose the Applicants' invention and the Examiner's rejection is respectfully requested to be withdrawn.

The Examiner also rejected claims 22-25 under §102(e) as anticipated by US 6,068,980 (Decor). The Examiner also rejected claims 22, 23 and 25 as anticipated by US 5,290,440 (Pirkle). These rejections are respectfully traversed for the reasons already provided in response to the Examiner's previous §102 rejections, namely that neither Decor nor Pirkle identically disclose the Applicants' invention; such responses are hereby incorporated by reference. Thus, the §102 rejections in view of Decor and Pirkle are respectfully requested to be withdrawn.

Based on the foregoing, applicants believe the application is now in condition for allowance. Favorable reconsideration and early notice of allowance are earnestly solicited. If any questions arise which can be disposed through interview, the Examiner is encouraged to contact Applicants' attorney at the telephone number listed below.

Please charge any fees which may be required for this submission to Johnson & Johnson
Deposit Account No. 10-0750/ASP-0010/TJS.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

A method of solving the reversion problem is disclosed in commonly assigned and co-filed patent application US Serial Number 09/747,230, (Attorney Docket Number ASP-009), filed December 22, 2000. The present invention offers another solution to treating aldehydes in a manner that does not require additional treating agents.

In the Claims:

28. (Amended) The device of claim 24, wherein the aminated surfaces are selected from the group consisting of ~~aninated polysaccharides~~ animated polysaccharides, chitosan, and mixtures thereof.